EMERGING MARKETS PROGRAM CENTRAL FUND PROPOSAL

Full title of proposal: Usage of Soy-Based Feeds in Philippines Aquaculture: Supporting U.S. Exports through Scientific Study

Date of proposal submission: August 27, 2008

Name of organization(s) submitting proposal:

Development Resources and Disaster Assistance (Principal Sponsor/Program Coordinator)
U.S. Department of Agriculture, Foreign Agricultural Service
Office of Capacity Building and Development
1400 Independence Ave. SW
Room 3208-S, Mail Stop 1033
Washington, D.C. 20250
DUNS: **13-590-7355**

Primary contact person

Sylvana Y. Li, Ph.D.
USDA/FAS/OCBD/DRDA/RDNR
Telephone: 202 690-2868; Fax: 202 720-6364
Sylvana.Li@usda.gov

Office of Agricultural Affairs/Philippines (Co-sponsor)
David Wolf, Agricultural Attaché
U.S. Department of Agriculture, Foreign Agricultural Service
25th Floor Ayala Life-FGU Center
6811 Ayala Avenue Makati City
1203 Makati City, Philippines
Telephone: 011-63-2-887-1137; David.Wolf@usda.gov

Executive Summary

The Philippine Government's Bureau of Fisheries and Aquatic Resources (BFAR) is willing to consider recommending use of soy-based fish feeds like those promoted by the American Soybean Association - International Marketing (ASA-IM), but only after first determining through collaborative study with the Foreign Agricultural Service (FAS) that these feeds compare well economically and environmentally with animal-based feeds currently in use. FAS, representing the U.S. Government, provides to the BFAR the type of collaboration that can only exist between two countries' government agencies. BFAR has received the solicitation from the U.S. private sector, namely the ASA-IM. What BFAR seeks in addition is the type of confirmation that comes from the involvement of the relevant U.S. public sector agency, namely FAS.

FAS is very well positioned to serve in this confirmatory and collaborative role, having just successfully conducted a three-year study in conjunction with ASA-IM and the Chinese government on substituting soy-based fish meal from the U.S. for grain and animal-based feed. Just as this government-to-government role played by FAS was an essential catalyst for success of ASA-IM's product in China, the same is appears true for the Philippines, given that government's desire for collaboration with FAS before considering recommending the product promoted by ASA-IM.

Fish production from aquaculture in the Philippines has nearly doubled from 2000 to 2006. Demand for fish feed is expected to continue to increase, particularly as there is much room for growth for fish as a percentage animal meat consumed in the Philippines. The proposed project will establish a pilot demonstration in the Philippines showcasing the economic and environmental benefits of soy-based fish feed; train Philippine counterparts on how to monitor water quality and fish weight in order to verify benefits; and coordinate an on-site workshop at harvest time for all to see the yield of bigger and tastier fish obtained with an American soy-based feed. FAS's assistance will give ASA-IM the help it needs for a successful entry of its product into the Philippine market. This project can help not only to establish the superior quality of soy-based fish feed over animal-based fish feed, but also help the U.S. soy product gain recognition over potential competition from India, China, Australia, and Brazil, all of which supply soybean meal to the Philippines.

Target Market

Soybean market in Philippines

Description of Problem:

The American Soybean Association – International Marketing (ASA-IM) has been looking for ways to encourage Philippine aquaculture farmers to move away from animal protein feeds to more environmentally friendly plant protein feeds. In response to ASA-IM solicitation, the Philippine Bureau of Fisheries and Aquatic Resources (BFAR) director has expressed his interest in diversifying Philippine aquaculture feeds to date. However, he has stated that he will not fully commit and make official recommendations to his farmers until his bureau has had a chance to participate with FAS in collaborative, quantifiable studies proving the environmental and economic strengths of U.S. feeds in a Philippine context.

External circumstances indicate that this is the ideal time to cooperate with BFAR. First, FAS is just completing a three-year study in conjunction with ASA-IM and the Chinese government that has helped lift U.S. soybean exports to China to record levels; lessons learned there would be of great utility in project implementation in the Philippines. Second, the Philippine government and U.S. Agency for International Development (USAID) have jointly selected aquaculture farming as a tool to bring rural development, and thereby peace, to the troubled southern Mindanao Island. The U.S. Ambassador to the Philippines also strongly supports U.S. development work in Mindanao. However, while USAID work to date has helped to rebuild the Philippine aquaculture industry, it has NOT prioritized using U.S. agricultural products and technology. Third, the Philippine government recently averted a rice shortage crisis by imploring the

Vietnamese government to guarantee a fixed supply and price for the rest of the year. It is likely that Philippine farmers will grow more rice and less grain that can be used for fish feed in the future, and U.S. soy-based feeds need to be poised to fill this shortfall.

Project Objectives:

This project proposes to establish a pilot/demonstration site in the Philippines that will demonstrate the environmental and economic strengths of U.S. soy-based fish feeds, and thereby encourage BFAR's director to recommend their usage in Philippine aquaculture. Additionally, by inviting USAID to participate in on-site studies and workshops, FAS could persuade USAID to incorporate U.S. soy-based feeds into its aquaculture development program. All on-site and laboratory work will be done on BFAR property with BFAR's support, creating a collaborative scientific environment supported by the scientifically-neutral presence of U.S. government authority provided by FAS. ASA-IM will work with BFAR to develop high quality formulas specifically tailored to Philippine economic and environmental needs.

Technical Support:

USDA will have the lead responsibility with the assistance of BFAR and the Philippine Ministry of Environment. BFAR has offered the use of government ponds and its laboratory in Science City of Muñoz. ASA-IM has offered its technical assistance in developing appropriate high quality feed formulas and local business. The proposal submission team requests that FAS/OCBD/Development Resources and Disaster Assistance Division (DRDAD) implement this activity. The DRDAD Project Manager will be responsible for submitting a final report to the Office of Trade Policy.

Description of Activities:

1. **Establishment of a pilot/demonstration site.** FAS/Manila will work with BFAR to select the best site from their proposed short list. The ideal site will consist of multiple ponds that share the same water sources but are separately contained from each other. The fish in half of the ponds will be cultured using ASA-IM feeds, technologies and practices, and the fish in the remaining ponds will be cultured using existing technologies and practices, with the intent of measuring water quality periodically and fish quality at the time of harvest.

2. **Training of BFAR staff in the proper use of water quality equipment.** FAS/OCBD/DRDAD will arrange for the procurement of the proper chemical tests, equipment and reagents to monitor water and soil quality, as well as fish weight, nutrient quality and feed conversion rate. FAS staff will travel to the site to agree upon protocols and record keeping methods with all stakeholders, as well as demonstrate usage and establish a system for the weekly exchange of data results and supervision of data collection activities.

3. **Coordination of an on-site workshop at harvest time.** FAS/OCBD/DRDAD will coordinate a workshop for BFAR leadership and regional leaders that disseminates test results showing improved soil and water quality following harvest, as well as bigger, tastier

fish. U.S. technical experts and BFAR on-site staff will lead technical workshops; ASA-IM will lead several sessions demonstrating cost-benefit analysis results of U.S. soy-based feeds. Furthermore, the final session will emphasize the importance of communicating lessons learned; all participants will be provided with a CD-ROM that they can use to share workshop content with their colleagues when they return home.

Performance Measures:

- Increased U.S. soybean exports to Philippines
- Official Philippine government recommendation of usage of ASA-IM soy-based feeds and aquaculture technologies
- Continuing Philippine interest in working with FAS for assistance in rebuilding its aquaculture industry
- Growth of Philippine aquaculture industry

Timeline for Activities: October 2008 to September 2009

Rationale for the Project Proposal:

The proposed activity would conform to the recent memorandum of agreement (MOA) signed between the Philippine Ministry of Agriculture and USDA. The MOA establishes a renewed cooperative relationship in the area of agricultural technical assistance and trade capacity building. This proposed activity also fulfills FAS goal #4 of its Country Strategy Statement for the Philippines, namely to proactively seek and coordinate USDA's international assistance programs to help strengthen Philippine agricultural institutions and promote Philippine economic development.

In 2006, the Philippines' purchases of U.S. soybean meal were $123 million, ranking it third behind Mexico and Canada. However, the rise of aquaculture in the Philippines suggests there could be larger opportunities in there for U.S. soybean meal. According to available fishery and aquaculture statistics for the Philippines from the Food and Agriculture Organization of the United Nations (FAO), approximately 18 percent of the Philippines' food fish supply comes from aquaculture. In 2002, the fish production from aquaculture represented only 8 – 9 percent of total animal meat consumption in the Philippines; thus according to FAO's National Aquaculture Sector Overview for the Philippines, "The prospects for further increasing aquaculture production are therefore enormous."

Since 2000, according to FAO, reported aquaculture production in the Philippines has shown a steep upward trend, nearly doubling from 2000 to 2006. India is a major supplier of soybean meal to the Philippines, with other suppliers including China, Australia, and Brazil. Although the Philippines has land suitable growing for soybean, production and transport costs reportedly are relatively high, making local production uncompetitive with imports. With the demand for feed for aquaculture to continue its increase, the need for further market penetration by the U.S. for its superior product is now.

The Director of BFAR has expressed his interest in U.S. soy-based fish feeds, and has indicated that he would be best convinced of their merits through empirical scientific tests in collaboration with the U.S. government. Only FAS has the authority to cooperate on a peer-to-peer basis with BFAR. By offering technical assistance to the Philippines at this early stage of the reconstruction of their aquaculture industry, FAS establishes the political and technical bedrock for future Philippine implementation of aquaculture policies conducive to further expansion of U.S. agricultural exports.

This program supports USDA/FAS Strategic Objectives: 1.3 (Build support for open trade by developing strategic relationships with foreign governments); 2.1 (Facilitate U.S. commercial trade through trade-related programs, information, and overseas services); and 2.2 (Support the U.S. trade policy agenda through trade capacity building activities).

Demonstration of Benefits for U.S. Agriculture:

The Philippine aquaculture industry represents the best opportunity to significantly expand the exports of U.S. feed ingredients to the Philippines. The aquaculture industry is growing rapidly and will need to find new and diverse ingredient sources in the immediate future. By encouraging BFAR leadership of the merits of U.S. soy-based feeds, our soy exports to the Philippines will increase measurably. ASA-IM is already active in the Southeast Asia feed sector, and wants to continue its success in the Philippines. The confluence of FAS and ASA-IM expertise on government policy has already proven effective in facilitating the adaptation of environmentally-friendly practices that boost U.S. soy exports to China and could be easily expanded to have regional impact.

Justification for Federal Funding:

Providing technical assistance as part of a long-term marketing strategy will result in substantive positive growth for U.S. agricultural products. USDA, as an impartial government agency, and with its policy and regulatory experts and access to the U.S. Environmental Protection Agency and U.S. land-grant universities, has the unique authority and capacity to develop and implement projects that will assist the Philippines in adopting an official stance recommending the use of U.S. feeds, technologies and policies.

Similar Activities Funded by USDA in Target Market:

The Chinese government has offered to provide funds allowing for the participation of BFAR and MOE leadership in a workshop to be held this September in China. This has piqued BFAR interest and led BFAR to offer the use of its ponds and laboratories to further study. FAS/Manila, in cooperation with ASA-IM, recently provided culinary training at the USDA Demo Kitchen on the use of pompano, a high value fish.

Budget:

Establishment of Pilot Site	$15,000	
Pond Stock	$25,000	
Technical Expertise to Philippines	$15,000	
Testing Equipment and Materials	$35,000	
Miscellaneous	$15,000	
Post-Harvest Workshop	$80,000	
FAS/OCBD Salaries	$53,540	
Total		**$238,650**